

ARCS PROCEDURE	SPECTRA PHYSICS LASER DIODE POWER SUPPLY INSTALLATION	PRO(MPL)-001.000
Author: A. Mendoza		06 January 2005 Page 1 of 7

Spectra Physics Laser Diode Power Supply Installation

I. Purpose:

This document provides instructions on how to install a modified spectra physics laser diode power supply, for micro pulse Lidar (MPL) only when the unit is labeled "1W=1.33A."

II. Cautions and Hazards:

- Do not exceed 1.8A. Shown in attachment 1.

III. Requirements:

- None.

IV. Procedure:

A. Fiber Connection

1. The fiber has a tab which fits into a slot on the connector at the back of the power supply.
2. Normally the operator can insert the fiber then twist it until the tab falls into the slot.
 - a) The new connection is too tight to twist the fiber.
3. The operator must first align the tab to the slot before inserting the fiber into the connector.
4. It is possible to insert the fiber and tighten the locking nut without the tab slot properly seated.
5. Care must be taken to insure the tab is in the slot before tightening the nut.
6. The other end of the fiber will connect to the MPL transceiver as normal.

B. Remote Handset

1. The operator must set the current.
2. If the operator presses and holds the button on the remote handset, the handset will continue to increase the setting at a fast pace.
3. Doing so could exceed the maximum rating and burn out the diode.
4. The operator must not "press and hold" any button on the handset.

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C. Verify all cables are connected before proceeding

1. Before power up, move the slide switch on the side of the remote handset to the “manual” position.
2. Power up unit.
3. Press the “pulse” button.
 - a) The “X” button has three states.
 - b) Two of the states will cause the “Status” or “PRF” lights to display.
 - c) The third position will not display anything.
4. Press the “X” button until “Status” is lit.
5. Press “Down” arrow button until the display reads “CUR1” as in attachment 2a.
6. Press the “Down” arrow one more time.
7. The display should have numbers.
 - a) The display is showing the current amperage reading.
 - b) It should be zero.
8. Press the “X”, the “Status” light should turn off and nothing else should light up.
 - a) You are now in the set CURRENT mode.
 - b) The red display will have numbers as in attachment 2b.
9. Use the “Up” or “Down” arrows to set the current to 1.25.
10. Press the “X” twice.
 - a) “Status” will be on and the readout will be 0.00.
11. Press the “Control” button.
 - a) “Emission” will turn on and the readout will jump to 1.25(+/-0.02) as in attachment 3.
12. Move the slide switch on the side of the remote handset to the “auto” position.
 - a) The laser will now auto start if there is a power outage.
13. Verify green light is emitting from telescope.
14. Operators can use the remote handset as normal for all other functions.

V. References:

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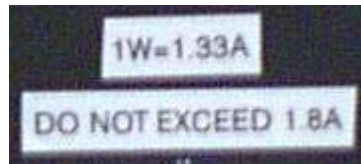
1. None.

VI. Attachments:

1. Attachment 1: Sticker on modified Spectra Physics Power Supply
2. Attachment 2a: Reading current
3. Attachment 2b: Setting Current
4. Attachment 3: Handset in running mode.

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Attachment 1: Sticker on modified Spectra physics Power Supply



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Attachment 2a: Reading Current



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Attachment 2b: Setting Current



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Attachment 3: Handset in running mode

